Attachment 1: Description of Emission Reduction Measure Form

Please fill out one form for each emission reduction measure. See instructions in Attachment 2.

Title: State Certification of Energy Analysts for the Title 24 Building Energy Efficiency Standards

Type of Measure (check all that apply):

- ☒ Direct Regulation
- ☐ Market-Based Compliance
- ☐ Monetary Incentive
- ☐ Non-Monetary Incentive
- ☐ Voluntary
- ☐ Alternative Compliance Mechanism
- ☐ Other Describe:

Responsible Agency: California Energy Commission

Sector:

- ☐ Transportation
- ☐ Electricity Generation
- ☐ Other Industrial
- ☐ Refineries
- ☐ Agriculture
- ☐ Cement
- ☐ Sequestration
- ☒ Other Describe: **New Construction & Alterations**

2020 Baseline Emissions Assumed (MMT CO2E): See Description below and attached Letter.

Percent Reduction in 2020: See Description below and attached Letter.

Cost-Effectiveness ($/metric ton CO2E) in 2020: See Description below and attached Letter.

Description: The emission reduction measure is the establishment of a critically important component now missing in the way that the building industry complies with the state's Building Energy Efficiency standards: that is, state oversight and certification of individuals who use the specialized state-approved energy code performance software to demonstrate that a particular building meets the appropriate energy efficiency requirements intended by the Title 24 standards.

As California Public Utilities and California Energy Commission studies have indicated over the past several years (as highlighted by public testimony at the CEC by the California Building Industry Association in June, 2007), there is a high rate of non-compliance with the energy standards. While these studies did not attempt to quantitatively correlate the overall impact of non-compliance of energy standards with increases of specific greenhouse gas emissions, it's reasonable to estimate that this

non-compliance could be in the 5% to 15% range. In other words, the state is not actually reducing the emissions that they predict if the Title 24 energy standards were universally being met.

While there are a few key reasons for non-compliance, one important aspect of the problem is that there is currently no licensing or certification of individuals who produce the energy performance calculations and documentation reviewed by the local building departments. Many years of energy plan review by firms working on behalf of the Investor-Owned Utilities (IOUs) indicate that energy performance calculations are often done improperly resulting in Title 24 documentation which specifies building energy measures that, taken collectively, do not actually achieve the overall energy efficiency level required by the standards.

CABEC, the California Association of Building Energy Consultants (www.cabec.org), is a professional non-profit association founded in 1986 which has administered its own voluntary Certified Energy Analyst (CEA) credential program since 1988. To become a Residential or Nonresidential CEA, a person must pass a written exam to demonstrate reasonably good knowledge of the energy standards and how they are applied, demonstrate a minimum level of experience and also attend a Professional Practices Workshop stressing professional ethics.

If such a CEA credential were required statewide for all individuals submitting energy performance calculations and signed performance reports, energy code compliance and enforcement will improve by a significant margin (e.g., 40%-50%). This will translate to a substantial improvement (e.g., perhaps 3% to 7%) in the reduction of greenhouse gases associated with the implementation of the Title 24 energy standards.

Emission Reduction Calculations and Assumptions: See attached Letter.

Cost-Effectiveness Calculation and Assumptions: See attached Letter.

Implementation Barriers and Ways to Overcome Them: There may be some language within the California Business and Professions Code that might pose a barrier in drafting legislation with respect to the professional reach of architects and engineers. However, this may not be the case if a thorough legislative evaluation of the issue were conducted. While the building industry, CEC and utility companies implementing energy incentive programs will support a state-certified CEA program, it must be initiated in a transition process with plenty of notice and sufficient time for all concerned.

Potential Impact on Criteria and Toxic Pollutants: To the extent that new buildings and buildings which have undergone substantial alterations use electricity and natural gas, then the associated "criteria pollutants" will be reduced in accordance with how much better compliance with the Title 24 energy standards is achieved.

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